

ABSTRACT

The present invention relates to a method and apparatus of that utilizes a reflective enclosure to simulate optical homogeneity in an otherwise inhomogeneous sample. The illumination sources and sample are placed within the reflective enclosure,
5 thus providing a method for examining a sample that is different from transmission, reflection or transflection. This apparatus and method are particularly well adapted to *in vivo* non-invasive testing for constituents of blood.